DEVELOPMENT STUDIES RESEARCH GROUP

Working Papers

CONDITIONS OF WORK IN CONTEMPORARY SOUTH AFRICAN INDUSTRY: A STUDY OF MINIMUM STANDARDS

C.E.W. Simkins

DSRG Working Paper No. 3

University of Natal
Pietermaritzburg
Department of Economies

Development Studies Research Group

CONDITIONS OF WORK IN CONTEMPORARY SOUTH AFRICAN INDUSTRY: A STUDY OF MINIMUM STANDARDS

C.E.W. Simkins

DSRG Working Paper No. 3

Pietermaritzburg

April

1977

TABLE OF CONTENTS

I. Introduction

This paper considers minimum standards (which are legally enforced) in respect of conditions of work in contemporary South African industry, in order to provide answers to the following questions:

(a) to what extent minimum standards, considered under various heads, vary between the industries for which they have been established;

(b) how real minimum wage rates for unskilled labourers have changed over the period 1973-1976;

(c) to what extent the minimum standards under each head considered are correlated with one another;

(d) whether the nature of the machinery for determining minimum standards and whether the industrial classification makes a significant difference to the standards set; and

(e) how the minimum standards compare with those set by the International Labour Organisation.

Minimum conditions of work have been studied in industries belonging to 18 two-digit Standard Industrial Classification categories in Durban. The instruments used to establish such industry-specific conditons include

- industrial council agreements (IC) made under the Industrial Conciliation Act
- wage determinations (WD) made under the Wage Act
- wage orders (WO) made under the Bantu Labour Relations Regulation Act.

I have selected one industry from each SIC category for study as follows:

SIC	Industry	Instrument
28	Stonecrushing trade	WD
31	Food industry	WD
32	Clothing industry	IC
33	Furniture manufacturing	IC
34	Printing and newspaper industry	IC
35	Chemical and allied products	WD
36	Glass and glassware manufacturing industry	WD
37	Iron and steel, engineering and metallurgical industry	IC

2/....

SIC	Industry	Instrument
38	Motor industry	IC
39	Brush and broom manufacturing	WD
51	Building industry	IC
52	Civil engineering industry	WO
61	Commercial distributive trade	WD
62	Coal trade	WD
63	Liquor and catering trade	IC
71	Non-European passenger transport trade	IC
94	Cinematograph and theatre industry	IC
95	Laundry, dry-cleaning and dyeing trade	IC

Examination of main industrial council agreements, wage determinations and wage orders will enable one to compare minimum conditions of work in these industries under six heads as follows:

- basic wages, i.e. wages of an adult male unskilled labourer
- ordinary hours of work
- overtime
- leave
- notice
- pay differentials for women

Job reservation in each industry will also be examined. This is regulated legally in two ways:

- orders made under the Industrial Conciliation Act
- clauses in industrial council agreements reserving certain categories of work for 'trade union labour'. Since African trade unions are not recognised under the Industrial Conciliation Act, African workers are barred from employment in such categories. Sometimes 'ratio provisions' which put an upper limit on the ratio of non-union to union workers are also included in industrial council agreements.

Important conditions of work not analysed here (as they would require study of different sources) are:

- sick leave and pay. Generally 10 days (for five-day week workers) or 12 days (for six-day week workers) sick leave are allowed; sometimes eligibility conditions are imposed. In industries where there is an industrial council, special sick pay agreements may exist.
- pensions. In industries where there is an industrial council, special

SIC	Industry	Instrument
38	Motor industry	IC
39	Brush and broom manufacturing	WD
51	Building industry	IC
52	Civil engineering industry	WO
61	Commercial distributive trade	WD
62	Coal trade	WD
63	Liquor and catering trade	IC
71	Non-European passenger transport trade	IC
94	Cinematograph and theatre industry	IC
95	Laundry, dry-cleaning and dyeing trade	IC

Examination of main industrial council agreements, wage determinations and wage orders will enable one to compare minimum conditions of work in these industries under six heads as follows:

- basic wages, i.e. wages of an adult male unskilled labourer
- ordinary hours of work
- overtime
- leave
- notice
- pay differentials for women

Job reservation in each industry will also be examined. This is regulated legally in two ways:

- orders made under the Industrial Conciliation Act
- clauses in industrial council agreements reserving certain categories of work for 'trade union labour'. Since African trade unions are not recognised under the Industrial Conciliation Act, African workers are barred from employment in such categories. Sometimes 'ratio provisions' which put an upper limit on the ratio of non-union to union workers are also included in industrial council agreements.

Important conditions of work not analysed here (as they would require study of different sources) are:

- sick leave and pay. Generally 10 days (for five-day week workers) or 12 days (for six-day week workers) sick leave are allowed; sometimes eligibility conditions are imposed. In industries where there is an industrial council, special sick pay agreements may exist.
- pensions. In industries where there is an industrial council, special

pension agreements may exist.

— industrial health and safety. This is enforced by the Department of Labour, which acts in terms of regulations made under the Factories Act.

— bonus and incentive schemes. These are not regulated on an industry-wide basis apart from prohibitions on the use of particular types of scheme.

II. The minimum standards

Under each of the seven heads mentioned, the industries studied will be ranked as follows:

(a) Basic wages:

Attention is confined here to the minimum wage for an adult male labourer working a standard week. Minimum wages prevailing at the end of September 1976 are listed below; the month in which the minimum came into force is also indicated:

Industry	MINIMUM WAGE (R per week)	Industry rank by wage	MONTH INTRODUCED	Industry rank by date minimum introduced
Stonecrushing	9,66	2	May 74	4
Food	16,50	9	Mar 76	12
Clothing	13,50	5	Nov 75	9
Furniture	23,00	17	Aug 76	15
Printing and newspaper	20,50	14	Jan 76	10
Chemical	18,00	12	Oct 75	7
Glass and glassware	11,04	3	Jun 73	1
Iron and steel	24,75	18	Jun 76	14
Motor	18,40	13	Mar 76	11
Brush and broom	17,50	11	Aug 76	16
Building	22,36	15	Apr 76	13
Civil engineering	23,00	16	Aug 76	17
Commercial distributive	13,00	4	Oct 73	2
Coal	9,00	1	Apr 74	3
Liquor and catering	15,12	7	Jan 75	5
Non-European passenger	16,00	8	Sep 76	18
Cinematograph & theatre	16,72	10	Oct 75	8
Laundry & drycleaning	15,00	6	Feb 75	6

4/....

Consider the hypothesis that the ruling minimum wage in any industry depends only on that industry and not on the time when it was introduced. If this were true, the Spearman rank correlation coefficient r_s between the wage rank and the date introduced rank should not be significantly different from zero. In fact r_s = 0,748, which is significant at the 1% level. So the wage ranks depend on the "date-introduced" ranks; this means that if we were to repeat the study after a period in which several new determinations were introduced, the wage ranks would be quite different.

In order to get round this problem, the following technique was used: the minimum wage in each industry was divided by the consumer price index prevailing in the month when it was introduced. This gives the real value of the minimum (in April 1970 prices) when it was introduced. (Of course, the CPI, based as it is on expenditure patterns of households having much higher incomes than those supported by African labourers, is not a perfect deflator, but it is the only one readily available). A relation of the form

$$\left(\frac{w}{p}\right)_t = \left(\frac{w}{p}\right)_0 (1 + g)^t$$

was assumed and $\left(\frac{w}{p}\right)_0$ and g were estimated using regression analysis, where

w stands for the current minimum wage

p stands for the CPI when the current minimum was introduced

g stands for the annual growth rate (in real terms) of minimum wages taken together

t stands for the time in years since December 1972.

The equation so obtained was:

$$\left(\frac{w}{p}\right)_t = 7{,}48(1.13)^t \qquad R^2 = 0{,}364$$

the correlation coefficient and the values of $\left(\frac{w}{p}\right)_0$ and g being significantly different from zero at the 5% level of significance.
This equation implies a general upward trend in real minimum wages for adult male labourers in Durban of 13% per annum over the period June 1973 to September 1976.

For each industry, the percentage deviation of the actual $\frac{w}{p}$ from the value predicted by the equation can be calculated. Positive deviations are observed for industries which pay better than most, while negative deviations will occur for low-paying industries. The ranks by deviation will therefore be used as wage ranks. The results are as follows:

5/....

Industry	$\frac{w}{p}$ (Rand per week April 70 prices)	t	$\left(\frac{w}{p}\right)_t$	$\Delta = \frac{\frac{w}{p} - \left(\frac{w}{p}\right)_t}{\left(\frac{w}{p}\right)_t}$ (%)	Rank by Δ
Stonecrushing	7,19	1,42	8,90	-19,2	4
Food	9,96	3,25	11,13	-10,5	6
Clothing	8,36	2,92	10,69	-21,8	3
Furniture	13,25	3,67	11,72	13,1	14
Printing and newspaper	12,60	3,08	10,90	15,6	15
Chemical	11,26	2,83	10,57	6,5	11
Glass and glassware	8,95	0,50	7,95	12,6	12
Iron and steel	14,56	3,50	11,48	26,8	18
Motor	11,11	3,25	11,13	- 0,2	8
Brush and broom	10,08	3,67	11,72	-14,0	5
Building	13,40	3,33	11,24	19,2	16
Civil engineering	13,25	3,67	11,72	13,1	13
Commercial distributive	10,17	0,83	8,28	22,8	17
Coal	6,74	1,33	8,80	-23,4	1
Liquor and catering	10,24	2,08	9,65	6,1	10
Non-European passenger	9,14	3,75	11,83	-22,7	2
Cinematograph and theatre	10,46	2,83	10,57	- 1,0	7
Laundry and drycleaning	10,10	2,17	9,75	3,6	9

The Spearman rank correlation coefficient between the rank by deviation and the rank by the date of introduction of the current minimum is 0,044. This is not significantly different from zero, confirming that the analysis has served the purpose for which it was designed. Turning to the deviations, one finds:

$\bar{\Delta}$ (mean) = 1,5%

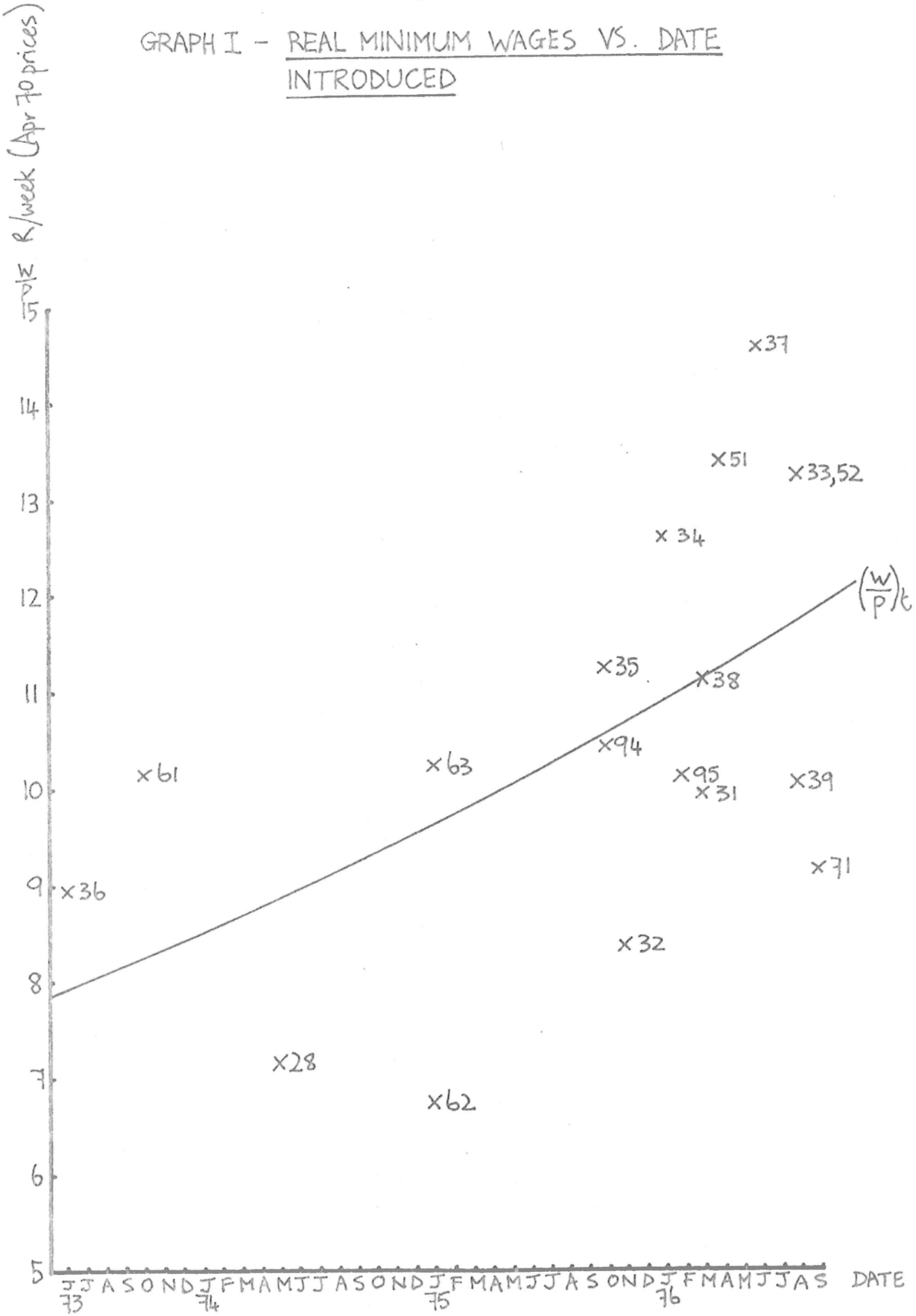
S_Δ (standard deviation) = 16,5%

Assuming the deviations to be normally distributed with zero mean, a 95% confidence interval for them is $\pm t_{17;0.05} S = \pm 34{,}8\%$. That is to say, in 19 out of 20 cases, one expects the actual minimum wage to be within 35% of the level predicted by the equation.

Further understanding of this analysis may be gained from inspection of Graph I. Each cross at $(\frac{w}{p}, t)$ represents the last minimum basic wage determination before September 1976 for an industry. From the graph one can see that $\frac{w}{p}$ and t are correlated and the first Spearman rank test confirms that this is so. $\frac{w}{p}$ is therefore regressed on t, using the model specified, and the regression line is drawn on the graph. The deviations of the crosses from the regression line are then

6/....

GRAPH I – REAL MINIMUM WAGES VS. DATE INTRODUCED



taken to indicate whether the relevant industries pay relatively high or relatively low wages. These deviations are considered in relative (i.e. as a proportion of the value of $(\frac{w}{p})t$) terms rather than in absolute terms, and are the basis of the second wage ranking which is independent of time. One would expect half the crosses to fall above and half to fall below the regression line which justifies our regarding it as an estimate of the median minimum wage.

Group 1: Real minimum wage better than median in November 1973 and higher in September 1976 than in November 1973.

33 - Furniture
37 - Iron and steel
38 - Motor
51 - Building
52 - Civil engineering
94 - Cinematograph and theatre

Group 2: Real minimum wage worse than median in November 1973 and higher in September 1976 than in November 1973.

31 - Food
25 - Chemical
39 - Brush and broom
63 - Liquor and catering
71 - Non-European passenger
95 - Laundry and drycleaning

Group 3: Real minimum wage lower in September 1976 than in November 1973.

28 - Stonecrushing
36 - Glass and glassware
61 - Commercial distributive
62 - Coal trade

Group 4: Data not readily available to make a judgement.

32 - Clothing
34 - Furniture

On graph II is displayed:

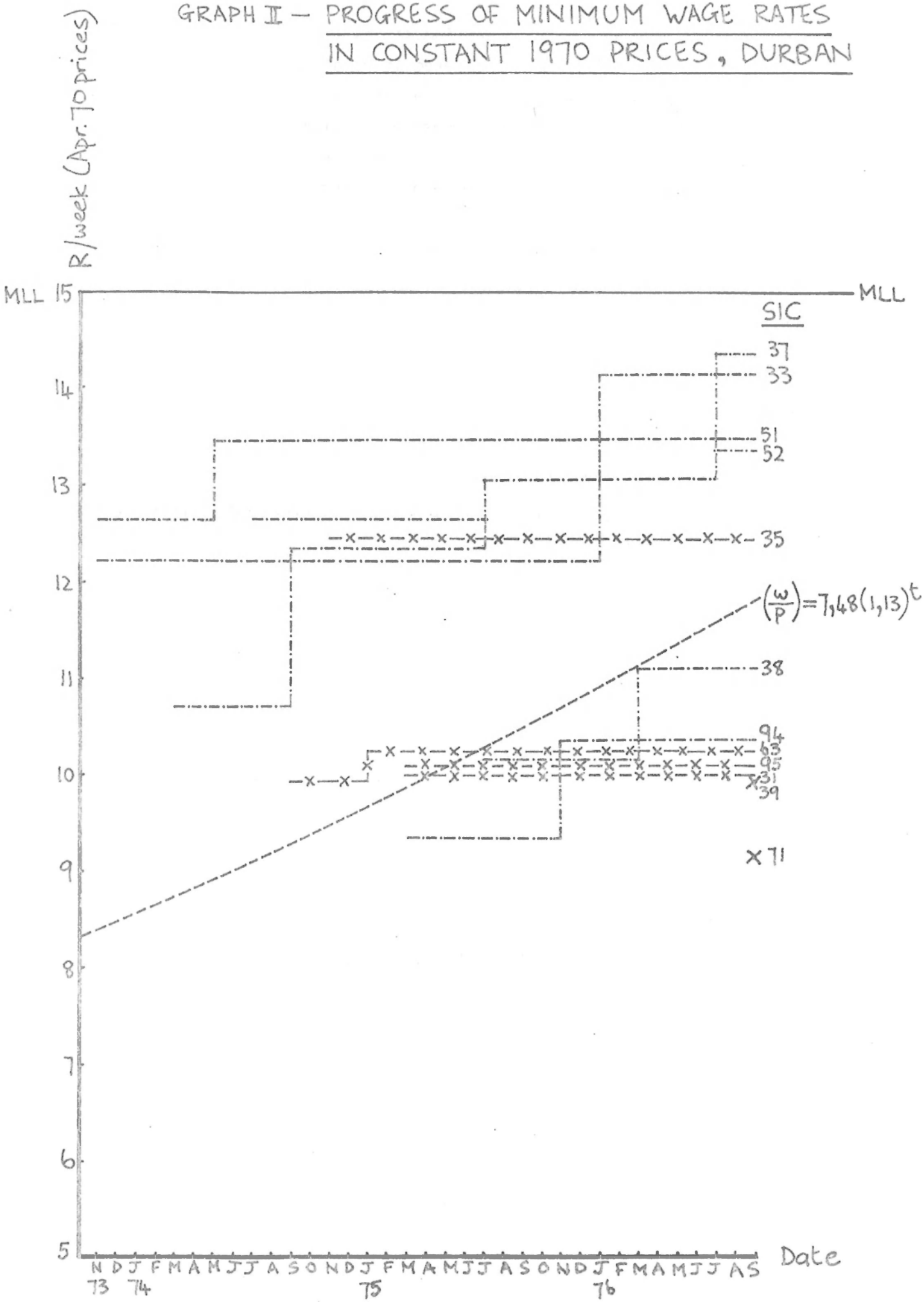
(i) the equation $\frac{w}{p} = 7{,}48(1{,}13)^t$

(ii) for each industry in Group 1 and in Group 2 the maximum real wage achieved by time k. Symbolically

$$\left(\frac{w}{p}\right)_t^{max} = \max\left\langle\left(\frac{w}{p}\right)_T ; T \leq t\right)$$

8/....

GRAPH II — PROGRESS OF MINIMUM WAGE RATES IN CONSTANT 1970 PRICES, DURBAN



(iii) the minimum living level for a family of average size in Durban, which is about R15 per week in April 1970 prices.

Assuming that the trend of minimum wage rates in the future is such as to keep the regression equation valid, $\frac{W}{p}$ will equal MLL in August 1978, i.e. by late 1978 we can expect half the industries in Durban to have minimum adult male labourer wages at the MLL or better. I do not believe that minimum wages will rise this fast over the next two years. Current low growth rates associated with the recession that started in late 1974 and which is by no means over, imply that real wage increases for labourers have to be financed largely out of real incomes of other groups in the economy and this will imply limits on increases in minimum wages. As minimum wages get closer to the MLL, too, so arguments for slowing the real rate of increase are likely to gain ground.

The relationship between actual wages paid and minimum wages for labourers is difficult to trace empirically because of the paucity of data on wages. Quarterly wage rate figures do exist for the building industry in Durban. Graph III contains:

(i) real minimum wage rates
(ii) the highest value of the real minimum attained to date
(iii) real actual wage rates

for adult male labourers in the building industry in Durban from February 1973 to February 1976. The graphs suggest the following hypotheses:

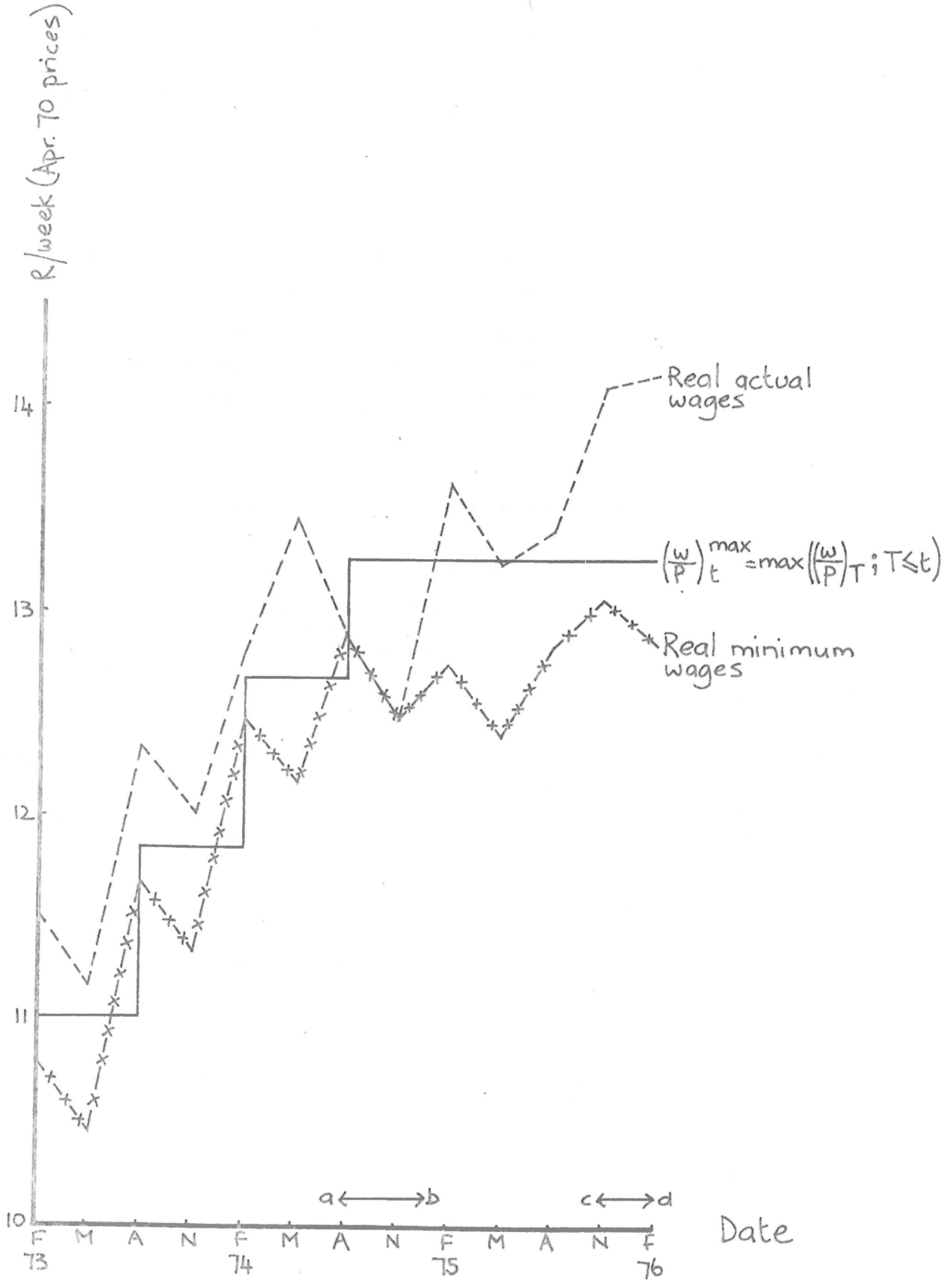
(a) wage drift, defined as the difference between actual and minimum wage rates, is small;

(b) generally, actual wages do not fall below the highest minimum achieved to date, in real terms. The section ab marked on the graph, however, shows that this is not always true. Inflation may erode the real wage to a level below the highest achieved minimum, especially after a period in which the latter has been rising rapidly;

(d) if the highest achieved minimum remains constant for a period of more than a year or so, the real actual wage may start to drift at higher levels above this value than at other times (the section cd on the graph).

Based as they are only on one industry, these points can be no more than hypotheses. They are more likely to apply to industries in Group 1 (especially those in which minimum wages have been revised frequently) than to those in Group 2. If the hypotheses are true and one desires to increase real wages substantially by minimum wage legislation, they imply that the new minimum will have to be price-indexed if the increase is not to be eroded by inflation in the short-run.

GRAPH III- BUILDING INDUSTRY, DURBAN



Other working conditions may be dealt with as follows: Under each heading, the industries are ranked, starting with the industry for which the relevant conditions of work are worst. Where there is a tie, a mean rank is calculated for later use in Spearman rank correlation tests. It proved relatively easy to carry out the ranking, in most cases, even when the condition which served as a ranking criterion could not be simply represented as a scalar quantity. In a few cases, arguments could be made for a slightly different ranking from the one adopted; these were not sufficient to affect the statistical tests which follow.

For each heading, a table and explanatory notes concerning the summary of conditions and the ranking criterion are presented:

(b) Ordinary hours of work

Rank	Industry	Summary of conditions (Hours)
1	63 - Liquor and catering	Offsales 47½ Others 54
2 - 11	28 - Stonecrushing	
(mean 6½)	31 - Food	
	35 - Chemical	
	36 - Glass and glassware	
	38 - Motor	Shift 48 Non-shift 46
	39 - Brush and broom	(Factories Act conditions)
	52 - Civil engineering	
	62 - Coal trade	
	71 - Non-European passenger	
	95 - Laundry and drycleaning	
12	61 - Commercial distributive	Labourers, receipt and despatch 46. Others 45
13	37 - Iron and steel	All 45
14	33 - Furniture	Deliverers 46 Others 44
15	94 - Cinematograph & theatre	All 44
16	51 - Building	All 43
17	32 - Clothing	Some 45 Most 42½
18	34 - Printing and newspaper	All 40

The figures under 'summary of conditions' represent the ordinary hours worked per week by the indicated categories of worker. The main ranking criterion is the ordinary hours of work applicable to the majority of people in the industry; those applicable to others were used to break ties wherever possible.

(c) Overtime

Rank	Industry	Summary of conditions (Hours)	
		Weekly limit	Rates
1	94 - Cinema and theatre	Some: unlimited Others: 10	1 1/3
2	52 - Civil engineering	Some: 15 Others: 10	1 1/3
3	61 - Commercial distributive	Some: 16 (Dec) 12 Others: 10	1 1/3
4 - 11	28 - Stonecrushing		
(mean 7½)	31 - Food		
	35 - Chemical		
	36 - Glass and glassware	10	1 1/3
	39 - Brush and broom	(Factories Act)	
	62 - Coal trade		
	71 - Non-European passenger		
	95 - Laundry and drycleaning		
12	51 - Building	13	Weekdays + Sat. before 17.00: 1 1/3 Sat. after 17.00: 1½
13	37 - Iron and steel	10	First 6: 1 1/3 Thereafter: 1½
14	34 - Printing and newspaper	10	First 6: 1 1/3 Next 4: 1½ Thereafter (if exemption): 2
15	32 - Clothing	10	1½
16	63 - Liquor and catering	8	1½
17	38 - Motor	10	Up to midnight: 1½ Thereafter: 2
18	33 - Furniture	10	Up to 22.00: 1½ Thereafter: 2

13/....

The figures under 'weekly limit' represent the maximum number of hours per week that any worker may work overtime, without special exemption being obtained from the relevant industrial council or the Department of Labour. The figures under 'rates' express the rates at which overtime is to be paid, as a proportion of ordinary rates. In some cases, the rates vary with the amount of overtime done or the times at which it is done and appropriate notes are added. The overtime rate mainly applicable is used as the ranking criterion with qualifications and limits on overtime used to break ties wherever possible.

(d) Leave

Rank	Industry	Summary of conditions	
		No. of public holidays	Annual leave (calendar days)
1 - 2	31 - Food	5	14 or 21
(mean 1½)	35 - Chemical		
3 - 9	28 - Stonecrushing		
(mean 6)	39 - Brush and broom		
	52 - Civil engineering	6	14 or 21
	62 - Coal trade		
	63 - Liquor and catering		
	71 - Non-European passenger		
	95 - Laundry and drycleaning		
10	36 - Glass and glassware	6	17 or 21
11	61 - Commercial distributive	10	15 or 18 or 21
12	33 - Furniture	7	19 but 4 weeks' wages
13	32 - Clothing	9	21 but 2 weeks' wages
14	34 - Printing and newspaper	7	21
15	37 - Iron and steel	8	21
16	38 - Motor	8 or 9	21
17	51 - Building	9	22
18	94 - Cinema and theatre	10	21 or 24 or 29

The figures under 'number of public holidays' represent the number of public holidays observed as days off each year; those under 'annual leave' represent the amount of leave in calendar (as opposed to working) days. The total number of days leave is used as the ranking criterion.

(e) Notice

Rank	Industry	Summary of conditions (length)
1	33 - Furniture	1 hour
2	52 - Civil engineering	2 hours
3 - 4	37 - Iron and steel	1 day
(mean 3½)	51 - Building	
5	38 - Motor	Some: 1 shift Others: 1 or 2 weeks
6	71 - Non-European passenger	First year: 1 day Thereafter: 1 week
7 - 12	28 - Stonecrushing	
(mean 9½)	31 - Food	
	35 - Chemical	First 4 weeks: 1 day Thereafter: 1 week
	36 - Glass and glassware	
	39 - Brush and broom	
	62 - Coal trade	
13 - 14	61 - Commercial distributive	First 4 weeks: 1 day Thereafter: 1 or 2 weeks
(mean 13½)	94 - Cinema and theatre	
15	63 - Liquor and catering	1 day or 1 week
16 - 17	32 - Clothing	1 or 2 weeks
(mean 16½)	95 - Laundry and drycleaning	
18	34 - Printing and newspapers	1 week or 1 month

The figures under 'summary of conditions' represent the length of notice which has to be given to any worker. In some cases, this varies with length of service or category of worker and appropriate notes are made. The length of notice is used as the ranking criterion, and qualifications are used to break ties, wherever possible.

15/....

(f) Job reservation

Rank	Industry	Summary of conditions	
		Ministerial Order	IC restrictions
1 - 4	32 - Clothing		
(mean 2½)	37 - Iron and steel	Yes	Yes
	38 - Motor		
	51 - Building		
5 - 7	33 - Furniture		
(mean 6)	63 - Liquor and catering	Yes	No
	71 - Non-European passenger		
8	34 - Printing and newspaper	No	Yes
9 - 18	28 - Stonecrushing		
(mean 13½)	31 - Food		
	35 - Chemical		
	36 - Glass and glassware		
	39 - Brush and broom	No	No
	52 - Civil engineering		
	61 - Commercial distributive		
	62 - Coal trade		
	94 - Cinema and theatre		
	95 - Laundry and drycleaning		

Two forms of job reservation may be imposed under the Industrial Conciliation Act:

(a) a Ministerial order made under section 77; in most discussions of the subject, attention is confined to this form, which may be designated 'explicit'.

(b) a clause in an industrial council agreement closing certain categories of work to all but trade union members. Since Africans may not join registered trade unions,such clauses exclude them from these categories and therefore constitute 'implicit' reservation.

If there is job reservation of type (a), 'yes' appears under 'ministerial order'; if there is reservation of type (b) 'yes' appears under 'IC restriction'. The ranking criterion is evident from the table.

(g) Pay differentials for women

Rank	Industry	Summary of conditions (wage ratios %)	
		adult female labourer / adult male labourer	adult female clerk / adult male clerk (qualified)
1	31 - Food	60	65
2	36 - Glass and glassware	79	63
3	62 - Coal trade	80	64
4	39 - Brush and broom	80	70
5	35 - Chemical	80	73
6	61 - Commercial distributive	81	68
7	94 - Cinema and theatre	84	-
8	95 - Laundry and drycleaning	93	77
9	32 - Clothing	100	63
10	28 - Stonecrushing	100	68
11	38 - Motor	100	77
12	34 - Printing and newspaper	100	100 differentials in other categories
13 - 18	33 - Furniture		
(mean 15½)	37 - Iron and steel		
	51 - Building	100	100
	52 - Civil engineering		
	63 - Liquor and catering		
	71 - Non-European passenger		

The figures under 'summary of conditions' can be interpreted from the headings in this column. The ranking criterion is the $\frac{\text{adult female labourer}}{\text{adult male labourer}}$ ratio, with the $\frac{\text{adult female clerk}}{\text{adult male clerk}}$ ratio breaking ties wherever possible.

These rankings are represented graphically against the ranking criterion scales on pp. 24-25. In the cases of wages relative to the median, ordinary hours of work, leave, and pay differentials for women, it has been possible to represent clustering of industries.

III. Correlations between standards

The table below displays Spearman rank correlation coefficients calculated from each pair of rankings:

17/....

	Wages	Ordinary hours	Overtime	Leave	Notice	Job reservation	Female pay
Wages	x	0,422	0,174	0,411	-0,189	-0,090	0,375
Ordinary hours		x	0,285	0,763**	0,068	-0,140	0,291
Overtime			x	0,351	-0,020	-0,548*	0,474
Leave				x	-0,015	-0,382	0,395
Notice					x	0,332	-0,333
Job reservation						x	-0,492*
Female pay							x

* denotes significant at 5% level
** denotes significant at 1% level.

The thing to notice is the paucity of significant associations. Two can be identified:

(i) good ordinary hours of work tend to go with good leave allowances,

(ii) the more severe job reservation, the better tends to be overtime and the smaller the pay differentials against women.

But there is no head under which the rank of a particular industry can be used to predict conditions in the industry generally.

IV. The effect of the standard-fixing machinery and industrial classification

The question is now asked: is there any difference between conditions determined by wage boards and those negotiated in industrial councils? The analysis may be extended as follows to provide an answer:

The civil engineering industry (SIC 52) is excluded as conditions are set there by wage order. Job reservation is also excluded as conditions are not wholly determined by wage boards or industrial council agreements. Under each head, the ranks associated with wage boards w_i, $i = 1, \ldots 7$ and those associated with industrial councils c_j $j = 1, \ldots, 10$ are considered separately. w_i and c_j are assumed to be normally distributed. Statistical tests are then applied according to the following table:

1. Are the vacancies significantly different? (F-test)

If no → 2A. Are the means significantly different? (t-test)

If yes → 2B. Are the means significantly different? (Behrens test)

The calculations are summarised below:

	Wages	Ordinary Hours	Overtime	Leave	Notice	Female pay
$\bar{w}$	8,00	7,29	6,86	6,00	10,07	4,43
S_w	5,54	2,08	1,70	3,69	1,51	2,99
$\bar{c}$	10,20	11,35	12,10	12,30	9,85	12,45
S_c	5,45	5,76	5,30	4,69	6,60	3,50
Test 1	$H_o: \sigma_w^2 = \sigma_c^2$ $H_A: \sigma_w^2 \neq \sigma_c^2$					
$F = \frac{S_w^2}{S_c^2}$	1,033	0,130	0,103	0,619	0,052	0,730
95% confidence limits	——— lower 0,297		upper 4,10 ———			
Significant difference?	NO	YES	YES	NO	YES	NO

19/....

	Wages	Ordinary Hours	Overtime	Leave	Notice	Female pay
Test 2A	$H_o: \mu_w = \mu_c$ $H_A: \mu_w \neq \mu_c$					
$\bar{c} - \bar{w}$	2,20			6,30		8,02
$\hat{\sigma}$	2,71			2,13		1,69
$T = \frac{\bar{c} - \bar{w}}{\hat{\sigma}\sqrt{\frac{1}{n_c} + \frac{1}{n_w}}}$	0,81			2,96		4,92
$t_{15;\ 0,05}$	2,13			2,13		2,13
Significant difference?	NO			YES		YES
Test 2B	$H_o: \mu_w = \mu_c$ $H_A: \mu_w \neq \mu_c$					
$\bar{c} - \bar{w}$		4,06	5,24		-0,22	
$\hat{\sigma}$		1,98	1,79		2,16	
$\tan w = \frac{S_c}{S_w}$		2,30	2,61		3,67	
w		67^o	69^o		75^o	
B		2,05	2,93		-0,10	
$b_{6;9;w;0,05}$		2,41	2,42		2,43	
Significant difference		NO	YES		NO	

from which we conclude:

(i) the outcomes of IC negotiations about ordinary hours of work, overtime and notice are significantly more variable than wage board determinations of these conditions. (Note that one would expect significant differences in variances to be in this direction; wage boards are in a position to recommend uniform conditions across industries).

20/....

(ii) significantly better overtime and leave conditions and significantly less pay discrimination against women are gained in IC negotiations. On the more important fronts of basic wages, ordinary hours of work and notice (an aspect of job security), there is no significant difference between IC agreements and wage board determinations.

The same analysis may be repeated to determine whether there is any difference between conditions in manufacturing and construction (i.e. industries with first SIC digit 3 or 5) on the one hand and those in mining and quarrying, on wholesale and retail trade and accommodation, transport storage and communication and community and personal services (i.e. industries with first SIC digit 2, 6, 7, or 9). Denote the first group by a and the second by b. The calculations are summarised below:

	Wages	Ordinary Hours	Overtime	Leave	Notice	Female Pay
$\bar{a}$	11,00	10,64	11,00	10,18	7,95	9,64
S_a	4,88	4,93	4,95	5,61	5,62	5,76
T_b	7,14	7,71	7,14	8,43	11,93	9,29
S_b	5,52	4,52	4,72	4,61	3,70	4,74
Test 1	$H_0: \sigma_a^2 = \sigma_b^2$ $H_A: \sigma_a^2 \neq \sigma_b^2$					
$F = \frac{S_a^2}{S_b^2}$	0,782	1,190	1,100	1,481	2,307	1,477
95% confidence limits	——— lower 0,311 upper 4,06 ———					
Significant difference?	NO	NO	NO	NO	NO	NO
Test 2A	$H_0: \mu_a = \mu_b$ $H_A: \mu_a \neq \mu_b$					
$\bar{a} - \bar{b}$	3,86	2,93	3,86	1,75	-3,98	0,35
$\hat{\sigma}$	5,13	4,78	4,87	5,26	4,99	5,40
$T = \frac{\bar{a} - \bar{b}}{\hat{\sigma}\sqrt{\frac{1}{n_a} + \frac{1}{n_b}}}$	1,56	1,27	1,64	0,69	-1,65	0,13

21/....

	Wages	Ordinary Hours	Overtime	Leave	Notice	Female Pay
$t_{16;0,05}$	2,12	2,12	2,12	2,12	2,12	2,12
Significant difference?	NO	NO	NO	NO	NO	NO

At the 5% level, therefore, no significant difference can be detected (from this limited sample) between standards in the two broad industrial categories.

V. Minimum standards set by the International Labour Organisation

The International Labour Organisation employs two instruments in the setting of minimum conditions of work:
(i) conventions, which members are invited to ratify, thereby declaring an intention to give legislative effect to their contents;
(ii) recommendations, which are designed to be implemented as appropriate under national conditions.

Standards have been set under the heads considered in the previous section as follows:

(a) Wages:

The basic criterion in wage fixing is set out in section A III of Recommendation no. 30 of 1928: "For the purpose of determining the minimum rates of wages to be fixed, the wage-fixing body should in any case take account of the necessity of enabling the workers concerned to maintain a suitable standard of living."

Interpreted most conservatively, this criterion means that minimum wages for unskilled labourers must be at least at the subsistence level, the lowest estimate of which in South Africa is the Minimum Living Level already referred to.

(b) Ordinary hours of work:

The principle of a normal 40-hour week was envisaged in Convention no. 47 of 1935; this is to be reached by stages, if necessary.

(c) Overtime:

No standard.

(d) Leave:

The standard is set down in paragraph 4(1) of Recommendation no. 98 of 1954 which states:

"Every person covered by this recommendation should be entitled to an annual holiday with pay. The duration of the annual holiday with pay should be proportionate to the length of service performed with one or more employers during the year concerned and should not be less than two working weeks for twelve months of service."

(e) Notice:

No standard.

(f) Discrimination in employment:

This is dealt with in Convention no. 111 of 1958. Discrimination is defined in Article 1 which states, inter alia:

1. For the purpose of this convention the term "discrimination" includes -
(a) any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation; ....
2. Any distinction, exclusion or preference in respect of a particular job based on the inherent requirements thereof shall not be deemed to be discrimination.

Article 2 declares that:

"Each member for which this Convention is in force undertakes to declare and pursue a national policy designed to promote, by methods appropriate to national conditions and practice, equality of opportunity and treatment in respect of employment and occupation, with a view to eliminating any discrimination in respect thereof."

The provisions of this convention, applied to South Africa, would mean:
(i) the abolition of job reservation, whether established explicitly by ministerial order or implicitly by industrial council agreement.
(ii) the abolition of pay differentials for women. It might still be possible for women to be excluded from certain types of work (e.g. very heavy manual labour).

Comparing these standards with the results of section II, we find:
(i) none of the industries studied reach the wage standard
(ii) one of the industries reaches the ordinary hours of work standard (the printing and newspaper industry)
(iii) all of the industries reach the leave standard
(iv) eight of the industries fail the non-discrimination standard by having explicit or implicit job reservation. Eleven fail by having pay discrimination against women. Only one industry does not fail the standard in either of these ways (the civil engineering industry), and this is regulated by a wage order, of limited scope.

VI. Summary of conclusions

(a) The variations in minimum conditions can be represented graphically as follows: (see pp. 24 and 25).

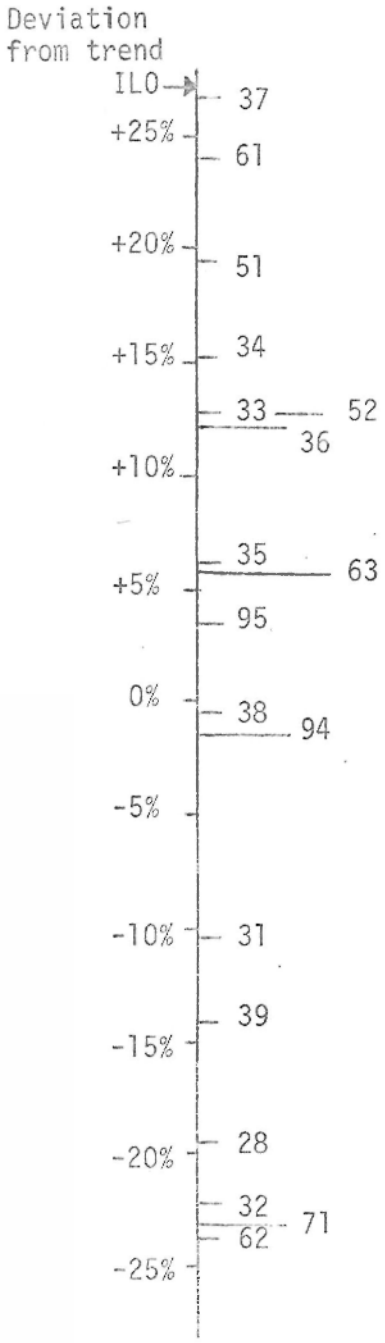
Conditions in other industries or in individual factories may readily be located on these scales.

(b) The median minimum basic wage rate has risen at an average rate of 13% p.a. in real terms over the period May 1973 to September 1976. At the latter date, it stood at about 79% of the Minimum Living Level in Durban. Should the real rate of increase be maintained (which is unlikely), the median rate will reach the MLL by the end of 1978.

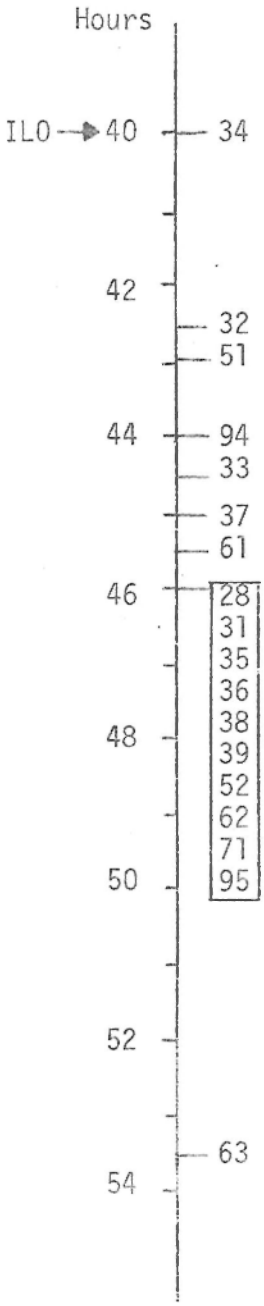
(c) Special analytical procedures (described on pp. 4-8) have been devised to remove the effect of the date of the last minimum wage setting on the industries studied in order to gain an idea of the ranking of industries by minimum wage over the whole period studied. It was found that 95% of industries could expect to have a minimum wage within 35% of the median minimum wage.

(d) By studying conditions in the building industry (the only one for which the relevant data have been published), it is hypothesised that, provided the current minimum wage determination is not more than about a year old, the actual wage for unskilled labourers is close to the highest achieved minimum in real terms. Application of this hypothesis will allow conclusions to be drawn about actual wages in many cases.

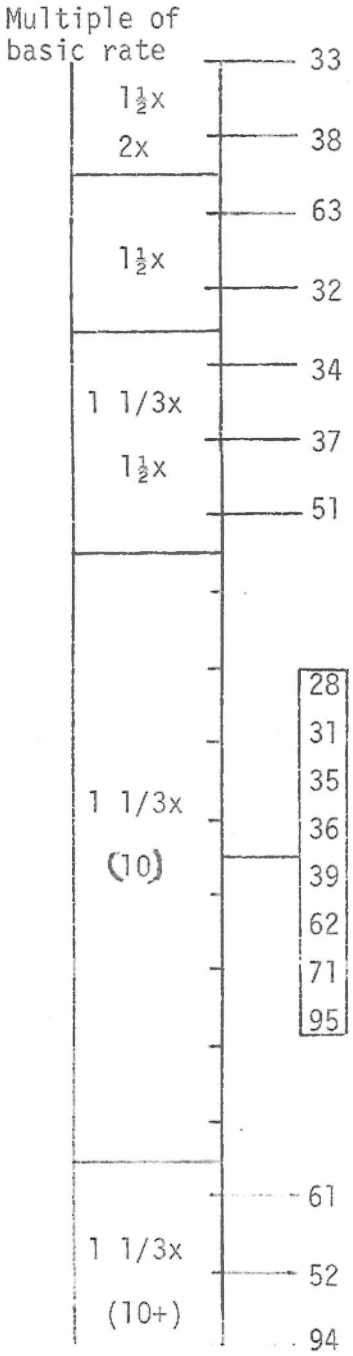
WAGES



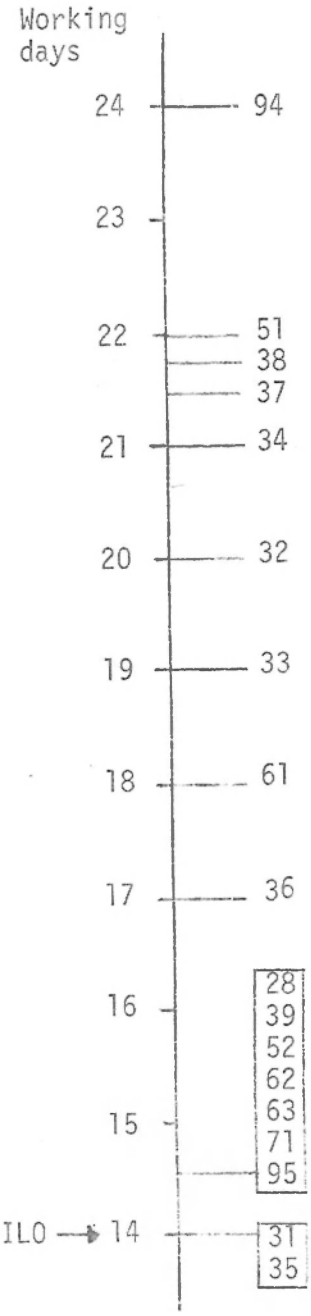
ORDINARY HOURS OF WORK



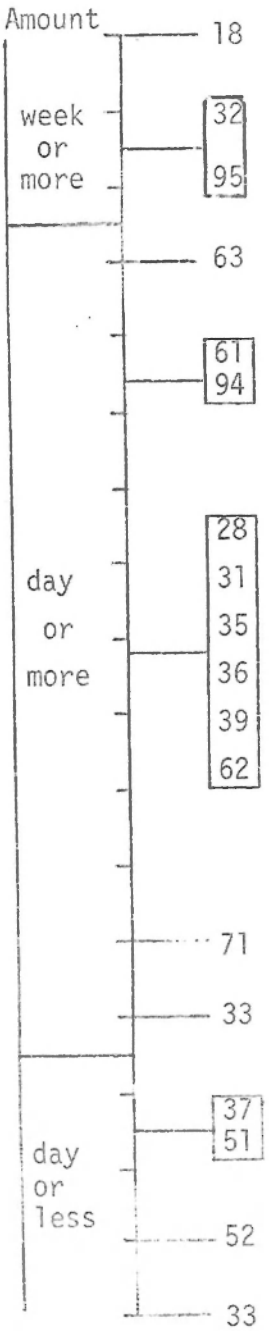
OVERTIME


Multiple of basic rate
1½x
2x
1½x
1 1/3x
1½x
1 1/3x
(10)
1 1/3x
(10+)
33
38
63
32
34
37
51
28
31
35
36
39
62
71
95
61
52
94

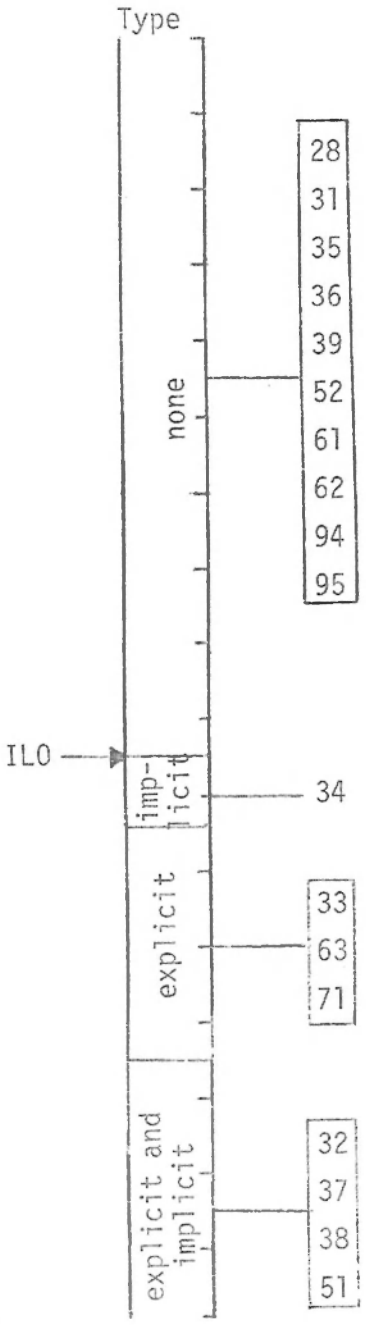
LEAVE



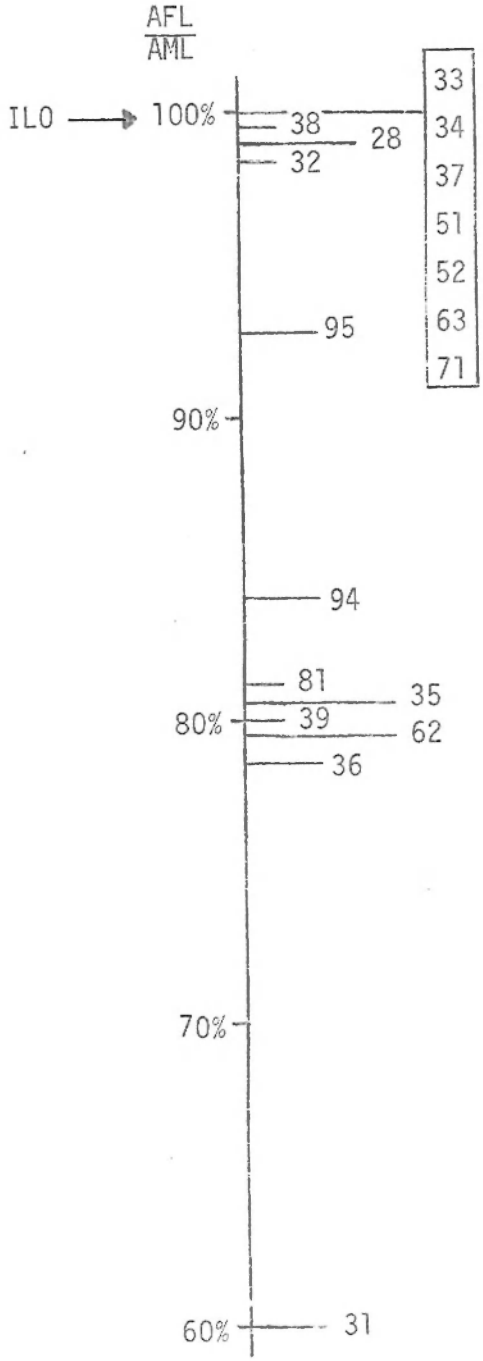
NOTICE



JOB RESERVATION



PAY DIFFERENTIALS FOR WOMEN



(e) There is very little association between conditions under each head, considered relatively, in any of the industries considered.

(f) (i) The outcomes of industrial council negotiations about ordinary hours of work, overtime and notice are significantly more variable than wage board determinations of these conditions.

(ii) Significantly better overtime and leave conditions and significantly less pay discrimination against women are gained in industrial council agreements, compared with wage board determinations. On the more important fronts of basic wages, ordinary hours of work and notice, there is no significant difference between industrial council agreements and wage determinations.

(iii) No significant differences can be detected between conditions in manufacturing and construction industries on the one hand and those in mining and quarrying, wholesale and retail trade and accommodation, transport, storage and communication and community and personal services on the other.

(g) Comparing ILO standards with the minimum standards in the industries studied we find:

(i) none of the industries studied reach the wage standard
(ii) one of the industries reaches the ordinary hours of work standard (the printing and newspaper industry)

(iii) all of the industries reach the leave standard
(iv) eight of the industries fail the non-discrimination standard by having explicit or implicit job reservation. Eleven fail by having pay discrimination against women. Only one industry (the civil engineering industry) does not fail the standard in either of these ways, and this is regulated by a wage order of limited scope.

Acknowledgement: I wish to thank Mr Ravi Joshi for help with extracting information from Government Gazettes and for advice on statistical matters. Any mistakes which remain are, of course, my own responsibility.

C.E.W. Simkins
Pietermaritzburg
April 1977

DEVELOPMENT STUDIES RESEARCH GROUP

Papers and Proceedings

			COST (Rands)
WORKING PAPERS			
1.	D.G. CLARKE	Foreign African Labour Supply in South Africa, 1960-1977. 62p. April, 1977 ...	2,00
2.	D.G. CLARKE	The South African Chamber of Mines: Policy and Strategy with Reference to Foreign African Labour Supply. 45p. April, 1977	1,00
3.	C.E.W. SIMKINS	Conditions of Work in Contemporary South African Industry: a Study of Minimum Standards. 26p. April, 1977	1,00
DISCUSSION PAPERS			
1.	D.G. CLARKE	Inflation and Subsistence Wages: Revised Estimates of the Urban Poverty Datum Line in Rhodesia for September, 1976. 10p. ..	0,50
2.	L. CLARKE	Poverty and Unemployment in Nqutu. 9p.	0,50
PROCEEDINGS			
1.		WORKSHOP ON UNEMPLOYMENT AND LABOUR REALLOCATION IN SOUTHERN AFRICA, DSRG, Pietermaritzburg, 18/19 March, 1977. 10 Papers (unbound)	7,50

Copies of all papers listed may be purchased. The DSRG is also interested in exchanging literature with researchers in related fields. Proposals in this connection, orders for papers or requests for further information should be addressed to the Secretary, Development Studies Research Group, Department of Economics, University of Natal, P.O. Box 375, Pietermaritzburg 3200.